AMENDMENTS TO THE CLAIMS

1. [Currently Amended] A method for the conversion of a fixed-bed catalytic reformer unit to moving bed reactor operation without a dedicated continuous catalyst regenerator, the method comprising:

converting each fixed bed reforming reactor of a fixed-bed catalytic reformer unit which includes a plurality of fixed bed reactors connected in a series train for reformer charge flow from one reactor to the next in the train to a moving-bed catalytic reformer unit ~~reactor~~ comprising a series train of moving bed reactors that allows continuous or intermittent addition of freshly regenerated catalyst to a catalyst inlet of the first moving-bed reactor of the series train and continuous or intermittent removal of spent catalyst from a catalyst outlet of the last moving-bed reactor of the series train, with each moving bed reactor connected in the train for reformer charge flow and for reforming catalyst flow from one reactor to the next in the train;

adding continuous or intermittent catalyst feeding facilities at the catalyst inlet of the moving bed reactor train for charging fresh or regenerated catalyst continuously or intermittently to the first continuous moving-bed reactor through the catalyst inlet of the first reactor and feeding regenerated catalyst to the catalyst inlet of the first reactor in the train;

adding spent catalyst recovery facilities for collecting the spent catalyst from the catalyst outlet of the last moving bed reactor of the series train, and transferring the spent catalyst to a reforming catalyst regeneration facility which is not integrated with the reactor train from which the catalyst is removed;

operating the moving-bed reactors at an effective pressure lower than the pressure at which the fixed bed reactor is operated before the conversion to improve reformate quality and yield relative to those of the reformate product from the fixed-bed unit before the conversion;

removing continuously or intermittently spent catalyst from the last moving-bed reactor of the series train; and transferring it to the non-integrated regeneration facility for regeneration.

2. [Original] The method of claim 1, in which the regeneration facility is a community onsite regeneration facility for a plurality of reforming units and in which the community onsite regeneration facility receives spent catalyst from the plurality of reforming units continuously or intermittently, regenerates the spent catalyst and supplies continuously or intermittently the plurality of reforming units with regenerated catalyst.

3. [Original] The method of claim 1, in which the regeneration facility is an off-site regeneration facility adapted to regenerate spent catalyst from a plurality of reforming units.

4. [Original] The method of claim 1, in which the regeneration facility is a moving bed regenerator integrated with a second moving bed reformer unit and of a capacity which enables it to accept the catalyst from the moving bed reactor of the converted unit after conversion.

5. [Cancelled]

6. [Previously presented] The method of claim 1 in which the reformer charge flow in the reactor train is cocurrent with catalyst flow in the reactor train.

7. [Previously presented] The method of claim 1 in which the moving bed reactors are operated after the conversion at a pressure lower than the pressure of the fixed bed reactor before conversion.

8. [Previously presented] The method of claim 7 in which the fixed bed reactor is operated before the conversion at a pressure of 1035 to 3800 kPag and the moving bed reactor is operated after conversion at a pressure which is within the range of 1035 to 2620 kPag and at a value which is lower than that of the fixed bed reactor before conversion.

9. [Cancelled]

10. [Original] The method of claim 9 in which the moving bed reactor is operated at a pressure of 1035 to 2415 kPag after conversion.

11. [Original] The method of claim 7 in which the moving bed reactor is operated after the conversion at a pressure which is equal to 20 to 60 percent lower than the pressure within the range of 1035 to 3800 kPag at which the fixed bed reactor is operated before the conversion.

12. [Original] The method of claim 11 in which the moving bed reactor is operated after the conversion at a pressure which is equal to 25 to 50 percent lower than the pressure within the range of 1035 to 3800 kPag at which the fixed bed reactor is operated before the conversion.

13. [Original] The method of claim 1, in which the fresh or regenerated catalyst comprises one or more Group VIII noble metals on a refractory support.

14. [Original] The method of claim 1, in which the fresh or regenerated catalyst comprises a hydrogenation-dehydrogenation function and an acid function.

15. [Original] The method of claim 1, in which the fresh or regenerated catalyst comprises platinum, tin, rhenium or combinations thereof on a substantially spherical alumina support particle.

16. [Original] The method of claim 1, in which the fresh or regenerated catalyst comprises platinum, platinum and tin, or platinum and rhenium on substantially spherical alumina support particles.

17. [Original] The method of claim 1, in which the catalyst feeding facility is operatively connected with the moving-bed catalytic reformer reactor; the catalyst recovery facility is operatively connected with the moving-bed catalytic reformer reactor and the catalyst feeding facility, the catalyst recovery facility and the moving-bed catalytic reformer reactor are operatively connected with existing fixed-bed unit facilities including reforming charge heaters and reformate product recovery facilities retained from the fixed bed unit.

18. [Currently amended] A method for the conversion of a fixed-bed catalytic reformer unit to moving bed reactor operation without a dedicated continuous catalyst regenerator, the method comprising:

converting each fixed bed reforming reactor of a fixed-bed catalytic reformer unit which includes a plurality of fixed bed reactors connected in a series train for reformer charge flow from one reactor to the next in the train, the unit being operated at an operating pressure of from 1035 to 3800 kPag and at an effective pressure lower than the pressure at which the fixed bed reactor is operated before the conversion, to a moving-bed catalytic reformer unit having[[,]] ~~the unit having~~ catalyst feeding facilities that allow continuous or intermittent addition of freshly regenerated catalyst to a catalyst inlet of the first moving-bed reactor of the series train and continuous or intermittent removal of spent catalyst from a catalyst outlet of the last moving-bed reactor of the series train, with each moving bed reactor connected in the train for reformer charge flow and for reforming catalyst flow from one reactor to the next in the train;

adding continuous or intermittent catalyst feeding facilities at the catalyst inlet of the first moving bed reactor for charging fresh or regenerated catalyst continuously or intermittently to the continuous moving-bed reactor through the catalyst inlet of the first reactor and feeding regenerated catalyst to the catalyst inlet of the first reactor in the train;

adding spent catalyst recovery facilities for collecting the spent catalyst from the catalyst outlet of the last moving bed reactor of the series train, and transferring the spent catalyst to a reforming catalyst regeneration facility which is not integrated with the reactor from which the catalyst is removed;

operating the moving-bed reactor at an effective pressure from 20 to 50 percent lower than the operating pressure of the fixed bed unit to improve reformate quality and yield relative to those of the reformate product from the fixed-bed unit before the conversion;

removing continuously or intermittently spent catalyst from the moving-bed reactor; and transferring it to the non-integrated regeneration facility.

19. [Previously presented] The method of claim 18 in which the fixed bed reforming unit includes a plurality of fixed bed reactors which are converted to a plurality of moving bed reactors operating at a pressure of 1035 to 2415 kPag and lower than the operating pressure of the fixed bed reactors.

20. [Previously presented] A method for the conversion of a fixed-bed catalytic reformer unit to moving bed reactor operation, the method comprising:

converting at least the reactors of a fixed-bed catalytic reformer unit having a plurality of sequential fixed-bed catalytic reforming reactors to a moving-bed catalytic reformer unit with a plurality of sequential moving bed reforming reactors in which each moving bed reactor is connected in a series train of moving bed reactors for reformer charge flow and for reforming catalyst flow from one reactor to the next in the train;

adding continuous or intermittent catalyst feeding facilities at the catalyst inlet of the first moving bed reactor in the sequence of moving bed reactors in the train for charging fresh or regenerated catalyst continuously or intermittently to the continuous moving-bed reactor through the catalyst inlet of the first reactor and feeding regenerated catalyst to the catalyst inlet of the first reactor in the train;

adding spent catalyst recovery facilities for collecting the spent catalyst from the catalyst outlet of the last moving bed reactor in the train of moving bed reactors, and transferring the spent catalyst to a reforming catalyst regeneration facility which comprises a reforming catalyst regenerator which is integrated with a second moving bed catalytic reforming unit but is not integrated with the moving bed reactor from which the catalyst is removed;

operating the moving-bed reactor at an effective pressure within the range of 345 to 2760 kPag and lower than the operating pressure of the fixed bed reactor unit before conversion to improve reformate quality and yield relative to those of the reformate product from the fixed-bed unit before the conversion;

removing continuously or intermittently spent catalyst from the last moving-bed reactor in the train; and transferring it to the regenerator, regenerating the catalyst in the regenerator and returning regenerated catalyst to the first moving bed reactor of the train of moving bed reactors in the converted unit.